#### DOCUMENT RESUME

ED 164.325

SE 025 937

TITLE ... Winter Survival: A Consumer's Guide to Winter

Preparedness.

INSTITUTION Repartment of Energy, Washington, D.C.

REPORT NO ADDE/OPA-0019 (1-78)

PUB DATE 78
NOTE 22p.

NOTE 22p. AVAILABLE FROM Department of Energy, Technical Information Center,

P.O. Box 62, Oak Ridge, TN 37830 (no price quoted)

EDRS PRICE MF-\$0.83 HC-\$1.67 Plus Postage.

DESCRIPTORS Community Information Services: \*Consumer Education: \*Emergency Programs: Energy: \*Health Education: Home

Health Aides: Home Management; \*Safety Education;

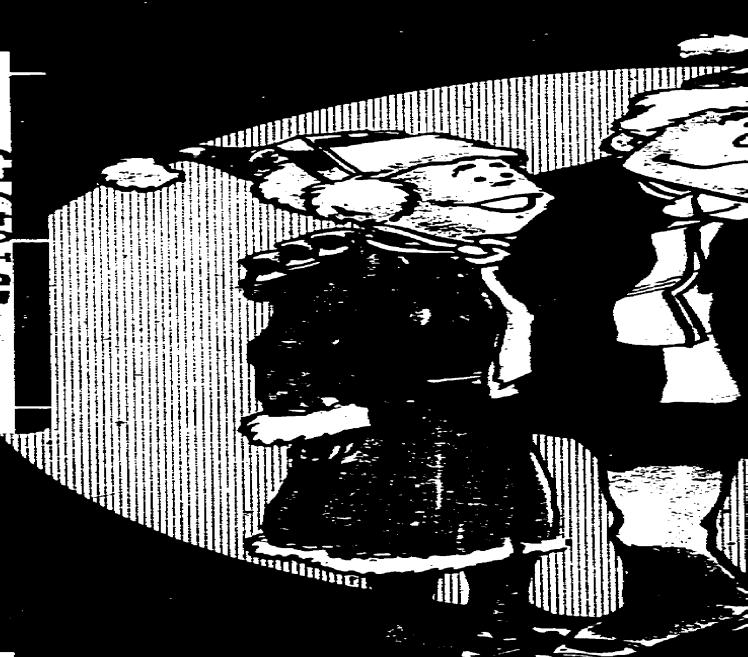
Temperature: Travel

#### ABSTR ACT

This booklet discusses a variety of topics to help consumers prepare for winter. Tips for the home include: winterizing the home, dealing with a loss of heat or power failure, and what you need to have on hand. Another section gives driving tips and what to do in a storm. Health factors include suggestions for keeping warm, signs and treatment for cold weather exposure, and who to contact for help. (TM)

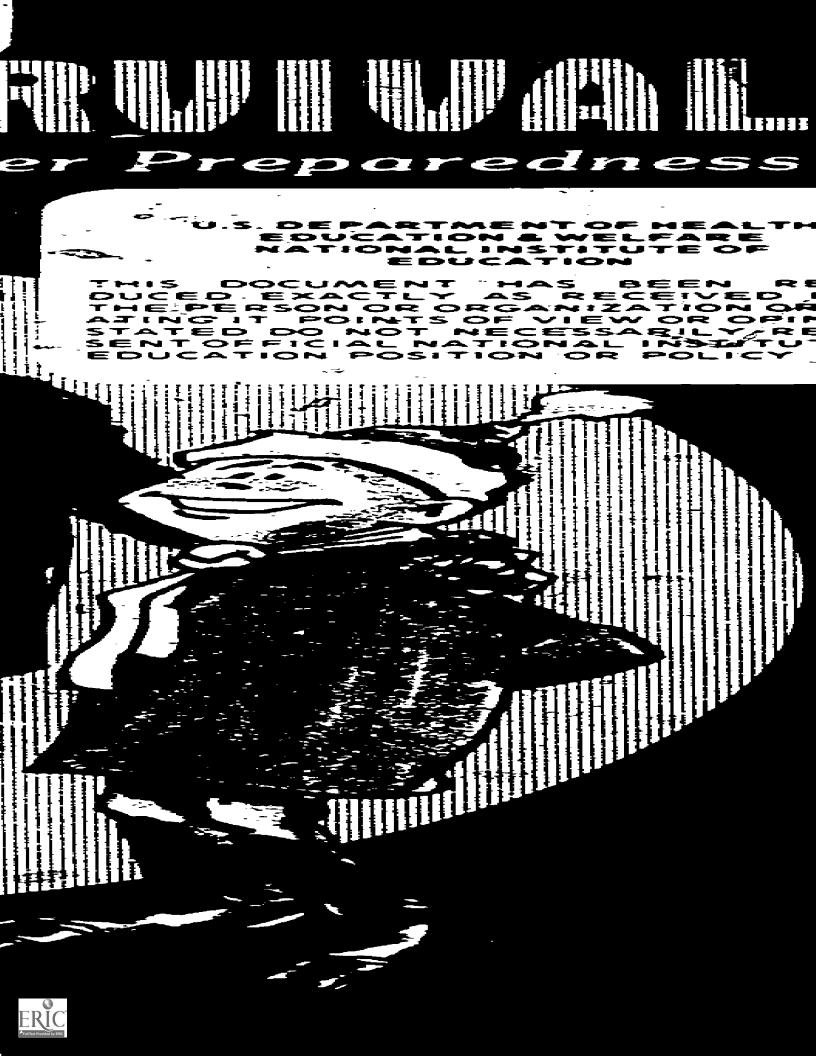
.000 515

A Consumer's Guide t



Departmen
Office of Con
Washing





## Acknowledgements

The Department of Energy wishes to thank the following organizations for their assistance in the preparation of this booklet:

Administration on Aging, Department of Health, Education and Welfare

American National Red Cross

Community Services Administration

Defense Civil Preparedness Agency Department of Defense

Extension Service, Department of Agriculture

National Outdoor Leadership School

National Weather Service, Department of Commerce



# WINTER SURVIVAL

#### A Consumer's Guide to Winter Preparedness

When winter approaches, many people may feel some apprehension about a severe winter: how it could affect them, their home and their family. This guide will help you prepare for winter and help you handle most emergencies that even the worst weather can bring.

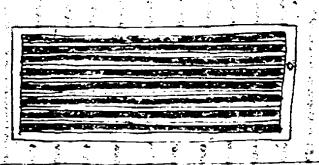
#### Cooler temperatures and your theath

Tolerance of cool temperatures varies among individuals, just as comfort levels do. One reason given for raising the thermostat is to protect one's health. However, for most people, lowering home and office thermostats to the recommended 65 degrees Fahrenheit during the day and 55 degrees at night will not by itself cause colds, influenza or pneumonia.

Tolerance of low temperatures and resistance to winter's illnesses depend on the body's general state of health and the amount of exposure to winter weather. A wet and windy environment intensifies the effects of cold temperatures and makes it harder for the body to maintain its natural warmth.

Most infants can cope well with temperatures in the 60 to 70 degree range provided they are kept warmly clothed and the relative humidity is kept high. Pregnant women can safely tolerate temperatures between 60 and 70 degrees. Some elderly people may have special problems in dealing with cool temperatures, and should consult their physician before lowering their thermostats drastically.



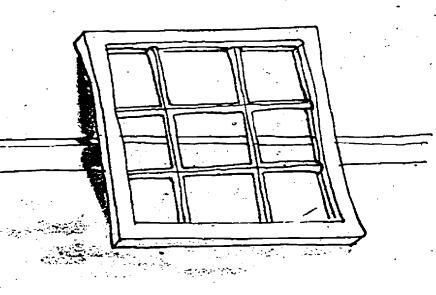


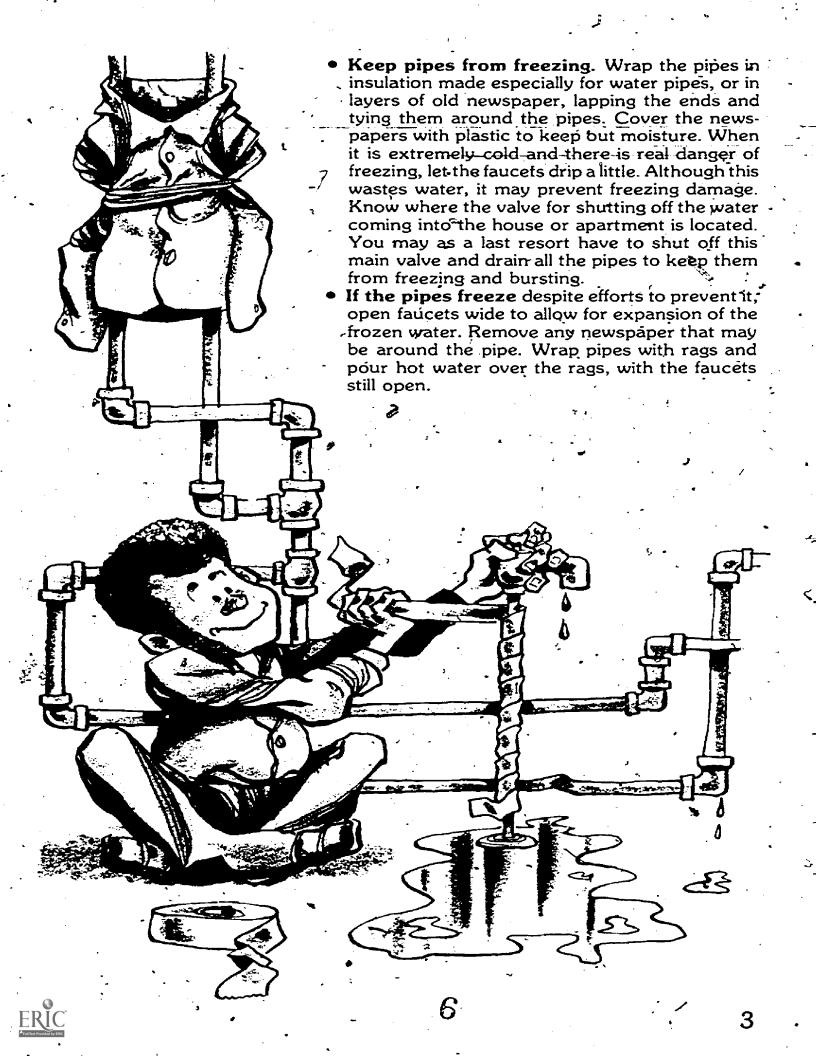
Your home should be just as prepared for winter as you are. Severe weather can result in serious emergencies: storms can knock down power lines, shutting off not only lights but also heating equipment which needs electricity to operate. There may even be periods when it is difficult or impossible to get out of the house.



Here are some things you can do to protect your home and stay comfortable:

- Insulate your house. Make it airtight to keep heat in and cold out. Caulk and weatherstrip doors and windows. Install storm windows or cover windows with plastic. Insulate walls and attics. For detailed information on how to insulate your home, contact/ your utility company or the Public Service Commission in your state.
- Have some type of emergency heating equipment available so you can keep at least one room warm enough to be livable if your furnace is not operating. The heat source you choose will depend on where you live or whether you own a home or rent. A fireplace with an ample supply of wood is, of course, excellent. A small, well-vented wood or coal stove is an efficient, low-cost heat source which may be used in houses and some apartments. A camp stove can be used in both.
- Be careful. Know how to use this emergency heating equipment safely to prevent fire or dangerous fumes. Proper ventilation is essential. For detailed information on safe handling of alternative heat sources and equipment, talk to a local dealer. Check your local telephone directory yellow pages under "Heating."





Although you may be tempted to throw up your hands in despair if you find your furnace is not operating, don't; the problem may be something simple you can remedy yourself. First, if your furnace burns oil, make sure the fuel tank is not empty. Secondly, check the electric switch that may control the blower or some other function of the heating unit. The switch may for some reason have been turned off. Also check the fuse or circuit breaker that controls the furnace to see if it's functioning.

#### Without heat? Don't panic

If your unit is gas-fired, check other gas appliances to make sure your main gas supply has not been cut off. If that doesn't solve the problem, next check the pilot light. Instructions for relighting the pilot light appear on the front of most units.

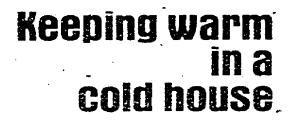
If these steps do not restore the furnace to operation, call the utility company which provides service in your area. If the unit is fueled by oil, call your fuel oil dealer or a company that specializes in heating and cooling work. They are listed in the yellow pages under "Heating."

If you are a renter, contact your city housing authority or local community action agency to find out how to get the landlord to provide heating service. If possible, familiarize yourself with the basic functioning of your heating equipment. Fuel dealers and utility companies are usually willing to show customers these basics, since it may save them the time and expenses of making emergency calls later on.

While you wait for help, do the following to maintain a minimal heat level:

- Use your alternate heat source.
- Close off those rooms which are not absolutely needed.
- Hang blankets over windows at night (let the sun shine in during the day). Stuff cracks around doors with rugs, newspapers, towels, or other such materials.
- Prevent water pipes from bursting, using the techniques already described. Collect water for drinking and store in covered containers. Close the water inlet valve on the toilet and then flush to prevent freezing damage.
- Don't hesitate to ask for help if the situation starts to get out of control. Call a neighbor or a local social or emergency service agency. Write those phone numbers down in advance and keep them handy.





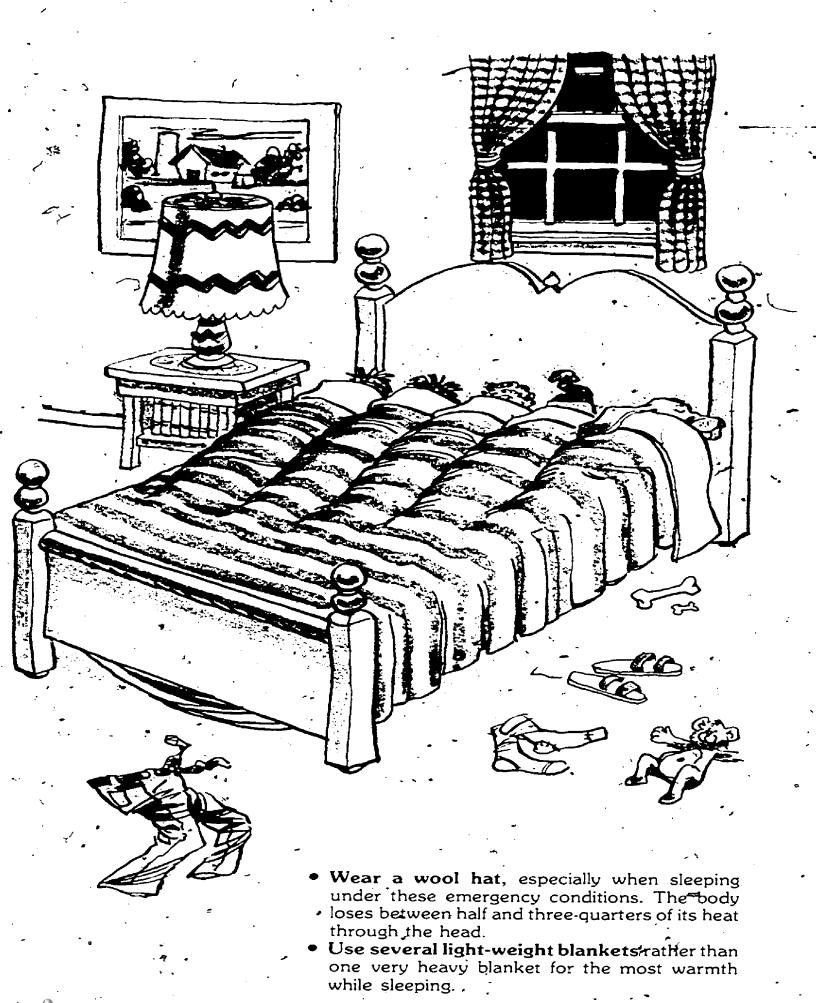
When your house is without heat because of malfunctioning equipment, lack of fuel, or any other reason, there are ways to preserve some of the home's heat and stay relatively comfortable:

Dress warmly. Wool clothing, worn'in direct contact with the skin, is the warmest. Do not put a layer of cotton underneath. If wool clothing is not available, heavily-layered cotton or synthetics will do. Layers of protective clothing are more effective protection against cold than a single layer of thick clothing — entrapped, insulating air is warmed by body heat. The layers can be removed as needed to prevent perspiring and subsequent chill.

Eat well-balanced, nutritional meals to allow the body to produce its own heat efficiently, especially quick-energy foods (raisins, other dried

fruit, other such foods).

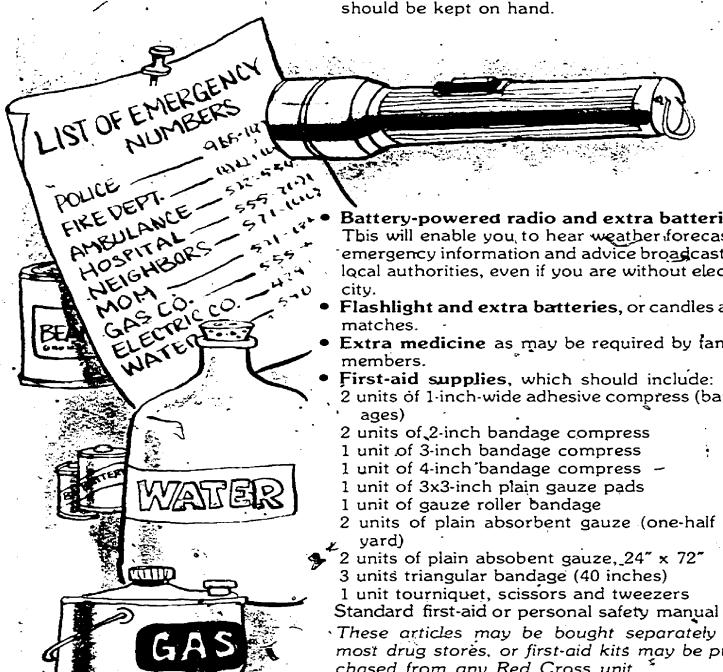




When a winter storm strikes or extra-cold weather lingers for long periods, certain items and information are indispensible in an emergency or even under normal circumstances. A home energy emergency kit should include:

#### What you need to naye handy

- Phone numbers you can dial for help your neighbors, the police, fire department, and other community service organizations. Check your local telephone directory for these emergency numbers and write them down in the spaces provided on the back pages of this booklet.
- Emergency food and water supply. Store some food that does not require refrigeration or cooking. An ample supply of drinking water should be kept on hand.



Battery-powered radio and extra batteries.

This will enable you to hear weather forecasts, emergency information and advice broadcast by local authorities, even if you are without electri-

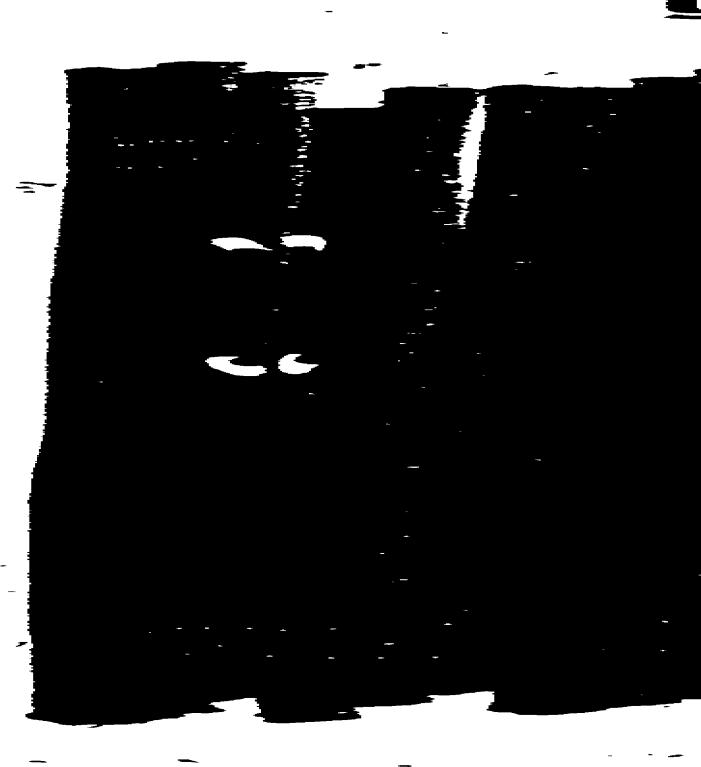
- Flashlight and extra batteries, or candles and
- Extra medicine as may be required by family
- First-aid supplies, which should include: 2 units of 1-inch-wide adhesive compress (band-
  - 2 units of 2-inch bandage compress

  - 2 units of plain absorbent gauze (one-half sq.
  - 2 units of plain absobent gauze, 24" x 72"
  - 1 unit tourniquet, scissors and tweezers
  - These articles may be bought separately at
  - most drug stores, or first-aid kits may be purchased from any Red Cross unit.
- Extra blankets or sleeping bags.
- Fire-fighting equipment, such as an extinguisher, buckets of sand, a shovel and an ax.



To most Ameri panic may hit if the will pass quickly, laccessible place. Sequipment, such a

#### the





mers electricity supply is so reliable that a moment of sinterrupted and the lights go out. The moment of panic if you know you have a flashlight or candles in an easily uld also be taken to protect your electrically-powered motors, and to have service restored.

If the power failure appears to be affecting your house or apartment only, check the fuse box or circuit breaker box — if there is one — which controls your house or apartment only. You may be able to correct the problem simply by replacing a fuse or resetting a circuit breaker switch. If this doesn't work, call the electric utility which supplies your home and request assistance. If the failure is a general one affecting an entire area, the utility company may already be aware of it and working to correct it. You may, however, wish to make sure the utility company is aware of the problem by calling it yourself. In the meantime:



Turn off most light switches, including your furnace switch, and unplug the freezer and refrigerator. The surge of returning electrical power can damage the motors of appliances. When the electricity returns, wait a half hour or so before turning on other lights or electrical equipment. This eases the immediate load on the electric utility system while it is trying to stabilize. Keep the freezer door closed as much as possible and first use the food stored in the refrigerator. Partially thawed foods can be safely refrozen only if they still contain ice crystals. After power is restored, examine food for signs of spoilage before refreezing it.



#### Enjoy the great outdoors, But...

People who are outside in low temperatures and strong winds tire easily and, because of rapid cooling of exposed surfaces, become more susceptible to frostbite. A strong wind, combined with a temperature slightly above freezing, can have the same effect as a still-air temperature pearly 50 degrees lower.



Here are some examples of how this wind-chill factor will dramatically lower the effective temperature:

Thermostat Temperature	At 15 mph Temp. Equals	At 30 mph Temp. Equals	At 40 mph and Over Temp. Equals
30	11	- 2	- 4
20	₹ 6	-18	-22
10	· · -18	-33	-36
Ç Q	-33	-49	-54
-10	-45	−6 <b>3</b> •	-69
-20	· -60	<sub>3</sub> -78	-87
-30	-70	-94	-101
-40	-85	` -10 <del>9</del>	-116



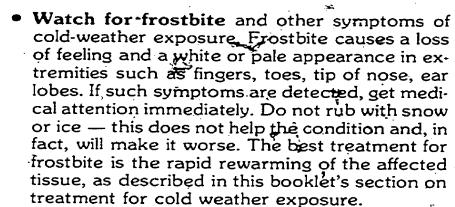
9

### you must go outside. . . .

Observe the following safety measures:

Avoid overexertion. Cold weather itself, without any physical exertion, puts an extra strain on the heart. If you add to this the strain of heavy physical activity such as shoveling snow, pushing an automobile or even walking too fast or too far, you risk damaging your body.

• Dress warmly in loose-fitting, layered, light-weight wool clothing. Outer garments should be tightly woven and water repellant. Wear a wool hat. Protect your face and cover your mouth to protect your lungs from very cold air. Wear mittens instead of gloves — they allow your fingers to move freely in contact with one another and will keep your hands much warmer.



 Avoid alcoholic beverages. Alcohol causes the body to lose its heat more rapidly — even though one may feel warmer after drinking alcoholic beverages.

wet socks and all other wet clothing as quickly as possible to prevent loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.

 If paralyzed persons or infants must go outside in severe weather, they should be checked frequently for signs of frostbite.

# Signs of cold weather exposure

When the body begins to lose heat faster than it can produce it, a condition called hypothermia begins to develop. The symptoms become very apparent, and include:

- Uncontrollable shivering
- Vague, slow, slurred speech
- Memory lapses; incoherence
- Immobile, fumbling hands
- Frequent stumbling; lurching gait
- Drowsiness
- Apparent exhaustion; inability to get up after a rest



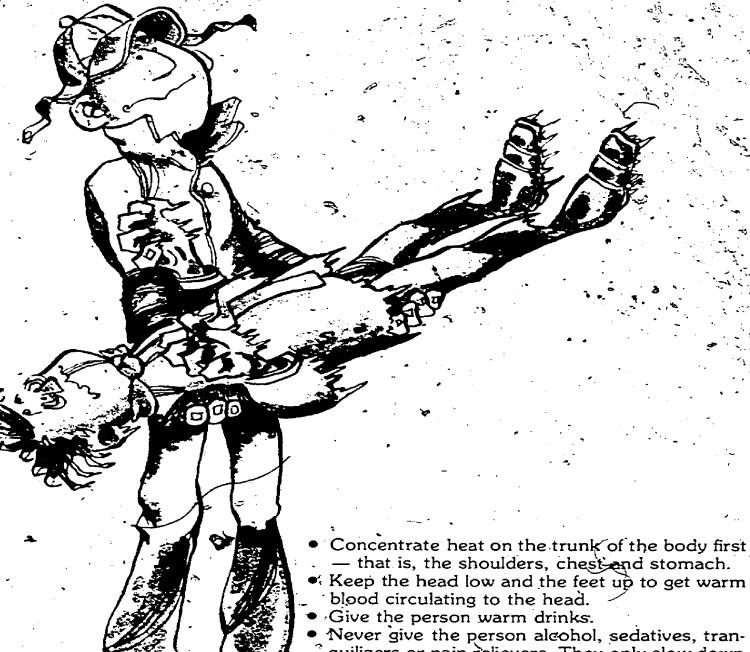


LIG

#### Treatment for cold weather exposure

If a person shows any signs of overexposure to cold or wet and windy weather; take the following measures — even if the person claims to be in no difficulty. Often the person will not realize the seriousness of the situation.

Get the person into dry.clothing and into a warm bed or sleeping bag with a "hot" water bottle (which should actually be only warm to the touch, not hot), warm towels, heating pad, or some other such hear source.



quilizers or pain relievers. They only slow down body processes even more.

Keep the person quiet. Do not jostle, massage or

If symptoms are extreme, call for professional medical assistance immediately.

#### Who to contact for information and help

Inform	ati	ion	or	•
Servic	e		9	

Emergency-aid in case of natural disaster (heavy storms, floods, etc.) Organization

Local Phone No.

Red Cross Police Dept. Fire Dept.

Information on altérnative heating sources, insulation, listing in fuel shortages or cutoffs, other assistance<sup>.</sup>

State Energy Office (see back pages)

Information on spèsial programs for the elderly

Local community action agencies

Utilities

Gas Electric Telephone Fuel Oil Dealer

Look up these local telephone numbers in your directory and write them down here for quick reference in times of emergency.



Reliable transportation is especially important in the winter. If you have a car, make sure it is ready for whatever winter may bring. The following precautions may help you to avoid an unpleasant or dangerous situation while traveling:

# Winter driving tips

 You should keep your car in top operating condition all year 'round — for safety and fuel economy. It is especially important to winterize your car by checking the following:

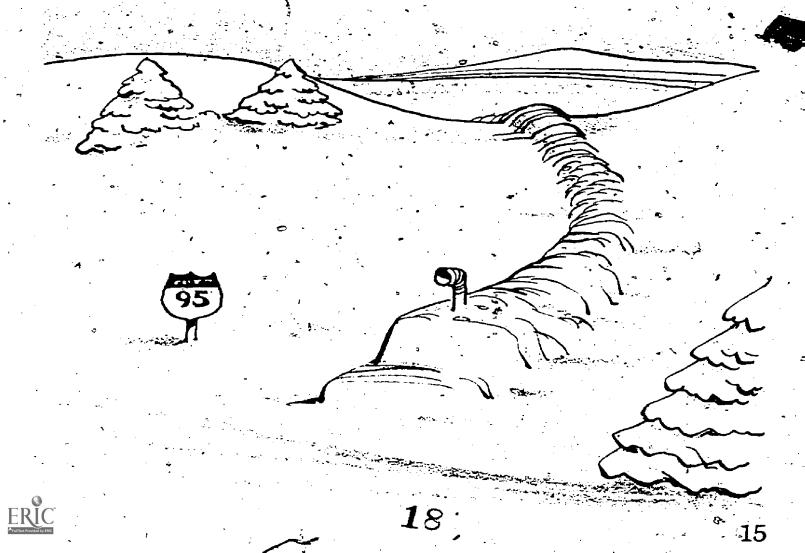
ignition system fuel system brakes
battery exhaust system wiper blades
lights antifreeze defroster
tire tread winter grade oil snow tires
cooling system heater to chains

- Keep your gasoline tank as nearly full as possible. This will keep water out of the tank and will provide the maximum advantage in case of trouble.
- A Citizens Band (CB) radio can be a very useful item in emergencies.
- Carry a winter storm car kit, especially if traveling long distances or, in the northern states, at all-times. A winter storm car kit should contain:
  - Sleeping bags, or two or more blankets. A stack of newspapers can provide layers of insulation and make a good substitute.
  - Two empty 3-lb. coffee cans with lids. One may be used for sanitary facilities, the other to burn candles for heat. Use a catalytic heater if available. A catalytic heater relies on a chemical reaction to produce heat (whether using this type of emergency heat source or your car's own heater, be sure to leave a window slightly open for air circulation. Carbon monoxide poisoning can happen without the victim being aware of it until it's too late.)
  - Matches and candles.
- Winter clothing, including wool caps, mittens and overshoes.
- Large box of facial tissues.
- First-aid kit with pocket knife.
- Flashlight with extra batteries.
- Small sack of sand.
- One set of tire chains.
- Shovel.
- Food supply (high-calorie, non-perishable food such as canned nuts, dried fruit, candy, etc.)
- Tools (pliers, screwdriver, adjustable wrench).
- Windshield scraper.
- Transistor radio, with extra battery.
- Battery booster cables.

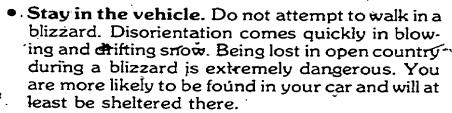


# If you must use your car during a storm....

- Plan your travel, selecting both primary and alternate routes.
- Check latest weather information on your radio.
- Try not to travel alone two or three people
  are preferable.
- Travel in convoy with another vehicle, if possible.
- Always fill the gasoline tank before entering open country, even for a short distance.
- Drive carefully and defensively.
- If the storm begins to be too much for you to handle, seek refuge immediately.



#### If a blizzard traps you in your car . . . .



Avoid overexertion and exposure. Exertions from attempting to push your car, shoveling heavy drifts, and performing other difficult chores during strong winds, blinding snow, and bitter cold of a blizzard may cause a heart attack—even for persons in apparently good physical condition.

 Keep a down-wind window slightly open for fresh air. Freezing rain, wet snow and winddriven snow can completely seal the passenger compartment.

• Beware of carbon monoxide. Run the engine and heater sparingly, and only with a down-wind window open for ventilation. Make sure that snow has not blocked the exhaust pipe.

 Exercise by clapping hands and moving arms and legs vigorously from time to time, and do not stay in one position for long. But don't overdo it. Exercise warms you but it also increases body heat loss.

 Take turns keeping watch. If more than one person is in the car, don't all sleep at the same time. If alone, stay awake as long as possible.

 Turn on the dome light at night to make your car more visible to working crews.

• Don't panic. Stay with the car.

Winter can be an enjoyable and beautiful season of the year, but we must be aware of its hazards. Having a comfortable and safe winter is a matter of advance planning.

Be prepared!

### State Energy Offices

Alabama
Alabama Energy Management Board
Alabama Development Office
Montgomery, Alabama 36130
(205) 832-5010

Alaska Alaska State Energy Office Mackay Building 388 Denali Street Anchorage, Alaska 99501 (907) 272-0527

American Samoa Special Assistant to the Governor Government of American Samoa Pago Pago, American Samoa 96920

Arizona
Fuel Allocations Section
Office of Economic, Planning and
Development
Capitol Tower, Room 507
Phoenix, Arizona 85007
(602) 271-3303

Arkansas State Energy Office Arkansas Department of Commerce 960 Plaza West Building Little Rock, Arkansas 72205 (501) 371/1379

California
Conservation Division
Office of Planning and Program
Development
Energy Resources Conservation and
Development Commission
1111 Howe Avenue
Sacramento, California 95825
(916) 322-4523

#### Colorado

Colorado State Energy Conservation Office State Capitol \\_ Denver, Colorado 80203 (303) 892-2502-/

Connecticut
Department of Planning and
Energy Policy
20 Grand Street
Hartford, Connecticut 06115
(203) 566-2800

Delaware
Office of Management, Budget, and Planning
Townsend Building
Dover, Delaware 19901
(302) 678-4271

District of Columbia Municipal Planning Office Mayor's Office Munsey Building, Room 409 1329 E Street, NW Washington, DC 20004 (202) 629-5111

Florida State Energy Office 108 Collins Building Tallahassee, Florida 32304 (904) 488-7680 >

Georgia Srate Energy Office 7 Hunter Street, SW Room 145 Atlanta, Georgia 30334 (404) 656-3874

Guam Guam Energy Office P.O. Box 2950 Agana, Guam 96910 Hawaii
Energy Management and
Conservation Office
Department of Planning and
Economic Development
Kamamalu Building
Honolulu, Hawaii 96804
(808) 548-4080

Idaho Office of Energy State House Boise, Idaho 83720 (208) 384-3182

Illinois
Division of Energy
Department of Business and
Economic Development
222 South College Avenue. 1st Floor
Springfield, Illinois 62701
(217) 782-7500

Indiana Indiana Energy Office 803 State Office Building Indianapolis, Indiana 46204 (317) 633-6753

Iowa Iowa Energy Policy Council Valley Bank Building 707 E. Locust Des Moines, Iowa 50317 (515) 281-4420

Kansas State of Kansas Energy Office 503 Kansas Avenue. Room 241 Topeka. Kansas 66603 (913) 296-2496

Kentucky Kentucky Department of Energy Capitol Plaza Tower Frankfort, Kentucky 40601 (502) 564-7070

Louisiana
Research and Development Division
Department of Natural Resources
Post Office Box 44156
Capitol Station
Baton Rouge, Louisiana 70804
(504) 389-5253 or 2771

Maine Office of Energy Resources 55 Capitol Street Augusta. Maine 04330 (207) 289-2196

Maryland Maryland EnergyaPolicy Office 301 W. Preston Street Baltimore, Maryland 21201 (301) 383-6810

Massachusetts
Massachusetts Energy Policy Office
McCormack Building, Room 1413
Boston, Massachusetts 02108
(617) 727-4732

Michigan Michigan Energy Administration Michigan Department of Commerce Law building, 4th Floor Lansing, Michigan 48913 (517) 374-9090

Minnesota Energy Agency 740 American Center Building 160 East Kellog Boulevard St. Paul. Minnesota 55101 (612) 296-5120

Mississippi
Mississippi Fuel and Energy
Management Commission
P.O. Box 139
Woolfolk Senate Office Building
Room 1307
Jackson, Mississippi 39205
(601) 354-7406

Missouri Missouri Energy Agency P.O. Box 1309 Jefferson City, Missouri 65101 (314) 751-4000



#### State Energy Offices (continued)

Montana Montana Energy Advisory Council c/o Lt. Governor's Office Capitol Building 104 Helena, Montana 59601 (406) 449-2946

Nebraska Nebraska State Energy, Office P.O. Box 94841 Lincoln, Nebraska 68509 (402) 471-2867

Nevada
State Energy Resources
Advisory Board
Public/Service Commission
of Nevada
505 East King Street,
- Capitol Complex
Carson City, Nevada 89(10)
(702) 885-4180

New Hampshire Governor's Council on Energy 3 Capitol Street Concord, New Hampshire 03301 (603) 271-2711

New Jersey New Jersey State Energy Office 101 Commerce Street Newark, New Jersey 07102 (201) 648-3290

New Mexico Energy Resources Board P.O. Box 2770 Santa Fe. New Mexico 87501 (505) 827-2146

New York
New York State Energy Office
Agency Building No. 2, 10th Floor
Emptre State Plaza
Albany, New York 12223
(518) 474-7927

North Carolina Conservation Branch Energy Division Department of Military and Veterans Affairs 215 East Lane Street Raleigh, North Carolina 27611

North Dakota
North Dakota Office of
Energy Management
OPR Building — Room 270
3rd and Maine
Bismarck, North Dakota 58501
(701) 224-2250

Ohio Energy and Resource
Development Agency
State Office Tower, 25th Floor
30 East Broad Street
Columbus, Ohio 43215
(614) 466-3465

Oklahoma
Oklahoma Department of Energy
4400 North Lincoln Boulevard
Suite 251
Oklahoma City, Oklahoma 73105
(405) 521-3941

Oregon Department\*of Energy 525 Cottage Street, N.E. Salem, Oregon 97310 (503) 378-4128

Pennsylvania Governor's Energy Council Payne-Shoemaker Building, Room 905 Harrisburg, Pennsylvania 17101 (717) 787-9749 Puerto Rico Department of Consumer Affairs P.O. Box 41059, Minillas Station Santurce, Puerto Rico 00940 (209) 726-6190

Rhode Island State Energy Coordinator State House. Room 124 Providence. Rhode Island 02903 (401) 277-3370

South Carolina Energy Management Office 1205 Pendleton Street Columbia, South Carolina 29201 (803) 758-2050

South Dakota
Office of Energy Policy
State Capitol
Pierre, South Dakota 57501
(605) 224-3603

Tennessee Tennessee Energy Office 250 Capitol Hill Building Nashville. Tennessee 37219 (615) 741-2994

Texas
Administrative Assistant for Energy
Resources
Governor's Office
7703 North Lamar Boulevard
Austin, Texas 78752
(512) 975-5491

Utah Slate Energy Coordinator Department of Natural Resources State Capitol, Room 438 Salt Lake City, Utah 84114 (801) 533-5356

Vermont Vermont State Energy Office State Office Building 110 State Street Montpelier, Vermont 05602 (802) 828-2768

Virgin Islands Office of Budget Director P.O. Box 90 St. Thomas, U.S. Virgin Islands 00801 -(809) 774-0750

Virginia Virginia Energy Office 823 East Maine Street, Room 300 Richmond, Virginia 23219 (804) 786-8451

Washington
Washington State Energy Office
1000 South Cherry Street
Olympia, Washington 98505
(206) 753-2417

West Virginia Federal State Relations Fuel and Energy Office 1262-1/2 Greenbrier Street Charleston, West Virginia 25311

Wisconsin Office of State Planning: Energy I West Wilson Street - Room B130 Madison, Wisconsin 53702

Wyoming State Capitol Building Cheyenne, Wyoming 82008 (307) 777-7434





For additional copies of this and other Department of Energy publications:

Department of Energy Technical Information Center P.O. Box 62 Oak Ridge, TN., 37830

For futher information about winter survival and other consumer energy programs, please write to:

Department of Energy Office of Consumer Affairs Washington, D.C., 20585